

U.S. Patent Application Serial No. 09/963,709
Amendment filed April 24, 2006
Reply to OA dated January 23, 2006

REMARKS:

Claims 1-12 are currently being examined, of which claims 1 and 5-8 have been amended herein.

The Examiner has indicated that claims 10-12 are allowed.

The Examiner has indicated that claim 5 sets forth allowable subject matter. The Examiner has objected to claim 5 as being dependent upon a rejected base claim, and has noted that claim 5 would be allowable if rewritten in independent form including the limitations of the base claim and any intervening claims. Accordingly, Applicant respectfully submits that claim 5, as amended, is in condition for allowance. Applicant respectfully requests that the objection to claim 5 be withdrawn.

The features disclosed in the subject application provide a method of demultiplexing an optical time-division multiplex signal into optical signal components of respective channels by using a **beat** formed between the optical signals in the time-division multiplex signal and an optical clock signal. While it may possibly be argued that such a beat may be formed when an optical clock signal and an optical time-division multiplex signal are transmitted along a dispersion medium together, it should be noted that the features disclosed in the subject application **extract** the beat when demultiplexing the optical time-division multiplex signal.

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The rejections and the claimed features are discussed herein below.

The Examiner has rejected claim 6 under 35 USC 102(b) as anticipated by USP 5,926,297 (**Ishikawa '297**).

Applicant respectfully traverses the rejection of claim 6, for the following reasons.

The Examiner has not demonstrated that **Ishikawa '297** describes, teaches, or suggests the following features of claim 6, as amended: “extracting a beat component formed between said optical time-division multiplex signal and said optical signal provided with respective chirp,” in combination with the other claimed features.

Additionally, the Examiner has not demonstrated that **Ishikawa '297** describes, teaches, or suggests the following features of claim 6, as amended: “providing a chirp to each of an optical time-division multiplex signal and an optical clock signal supplied via respective paths; detecting said optical time-division multiplex signal and said optical clock signal in a superimposed state,” in combination with the other claimed features.

Thus, Applicant respectfully submits that the rejection of claim 6 should be withdrawn.

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The Examiner has rejected claims 8 and 9 under 35 USC 102(e) as anticipated by USP 6,661,974 (**Akiyama '974**).

Applicant respectfully traverses the rejection of claims 8 and 9, for the following reasons.

The Examiner has not demonstrated that **Akiyama '974** describes, teaches, or suggests the following features of claim 8, as amended: “a plurality of optical detectors each coupled optically to said first and second optical dispersion parts, each of said optical detectors receiving said optical time-division multiplex signal and said optical clock signal in a superposed state, each of said optical detectors producing a beat formed between said optical time-division multiplex signal and said optical clock signal; a plurality of band-pass filters each provided in correspondence to one of said plurality of optical detectors, each of said band-pass filters extracting an output signal of said optical detector of a beat frequency corresponding thereto,” in combination with the other claimed features.

In view of the above, it is respectfully submitted that the rejection of claim 9 should be withdrawn by virtue of its dependency.

Thus, Applicant respectfully submits that the rejection of claims 8 and 9 should be withdrawn.

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The Examiner has rejected claim 1 under 35 USC 103(a) as obvious over **Ishikawa '297**.

Applicant respectfully traverses the rejection of claim 1, for the following reasons.

The Examiner has not demonstrated that **Ishikawa '297** describes, teaches or suggests the following features of claim 1, as amended: “an optical detector coupled optically to said optical dispersion part, said optical detector detecting a beat of said optical time-division multiplex signal and said clock signal from said optical dispersion part in a superposed state; and a filter connected to an output terminal of said optical detector, said filter extracting an electric signal of a desired beat frequency band from an output electric signal of said optical detector,” in combination with the other claimed features.

Additionally, the Examiner has not demonstrated that **Ishikawa '297** describes, teaches, or suggests the following features of claim 1, as amended: “an optical dispersion part supplied with an optical time-division multiplex signal and an optical clock signal via respective, different paths,” in combination with the other claimed features.

Thus, Applicant respectfully submits that the rejection of claim 1 should be withdrawn.

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The Examiner has rejected claims 2-4 and 7 under 35 USC 103(a) as obvious over **Ishikawa '297** in view of Applicant's Figure 2.

Applicant respectfully traverses the rejection of claims 2-4 and 7, for the following reasons.

The Examiner has not demonstrated that **Ishikawa '297** in view of Applicant's Figure 2 describes, teaches, or suggests the following features of claim 7, as amended: "an optical detector coupled optically to said optical dispersion part, said optical detector receiving said optical time-division multiplex signal and said optical clock signal in a superposed state and detecting a beat formed between said optical time-division multiplex signal and said optical clock signal; a filter connected to an output terminal of said optical detector, said filter extracting an electric signal of a desired beat frequency band from an output electric signal of said optical detector," in combination with the other claimed features.

Additionally, the Examiner has not demonstrated that **Ishikawa '297** in view of Applicant's Figure 2 describes, teaches, or suggests the following features of claim 1, as amended: "an optical dispersion part supplied with an optical time-division multiplex signal and an optical clock signal via respective, different paths...; an optical detector coupled optically to said optical dispersion part, said optical detector detecting a beat of said optical time-division multiplex signal and said clock signal from said optical dispersion part in a superposed state; and a filter connected to an output

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terminal of said optical detector, said filter extracting an electric signal of a desired beat frequency band from an output electric signal of said optical detector,” in combination with the other claimed features.

In view of the above, it is respectfully submitted that the rejection of claims 2-4 should be withdrawn by virtue of their dependency.

Thus, Applicant respectfully submits that the rejection of claims 2-4 and 7 should be withdrawn.

The Examiner treats Applicant's Figure 2 as “PRIOR ART” without justifying or explaining such treatment. In the subject application, the Applicant has not labeled Figure 2 as “PRIOR ART.” Furthermore, the Examiner has not demonstrated that Figure 2 satisfies any of the criteria required by 35 USC 102. For example, in the rejection of claims 2-4 and 7, the Examiner did not cite any printed publication describing Figure 2 more than one year prior to the date afforded the subject application. Thus, Applicant respectfully requests that the Examiner either withdraw such treatment of Figure 2 or provide justification for such treatment of Figure 2.

In view of the aforementioned amendments and accompanying remarks, all claims currently being examined are in condition for allowance, which action, at an early date, is requested.

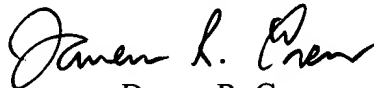
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If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact the applicant's undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, the applicant respectfully petitions for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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